

REMARKS

Claims 1-16 are pending in the present application. Claim 17 has been canceled. Claims 1 and 4-15 stand rejected under 35 U.S.C. § 103(a) as allegedly obvious over Löhn, U.S. Patent No. 4,886,452 ("Löhn") in view of Ng et al., U.S. Patent No. 6,283,014 ("Ng et al."), and either West, U.S. Patent No. 5,123,839 ("West"), Schmid, U.S. Patent 5,271,087 ("Schmid"), or Rainey, U.S. Patent No. 6,253,964 ("Rainey"). Claim 2 stands rejected under 35 U.S.C. § 103(a) as allegedly obvious over Löhn in view of Ng et al. and Schindler, U.S. Patent No. 4,225,777 ("Schindler"), and either West or Schmid in view of Rainey and Schindler. Claim 3 stands rejected under 35 U.S.C. § 103(a) as allegedly obvious over Löhn in view of either Schindler or Ng et al. and Joudikis, U.S. Patent No. 3,946,200 ("Juodikis"), and either West or Schmid in view of Rainey and Juodikis. Lastly, claims 16 and 17 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Rainey or West. Applicant respectfully requests reconsideration and withdrawal of these rejections.

The Office action objected to the abstract. The abstract is amended to delete the word "purposively." The applicant requests the objection therefore be withdrawn.

Claim Rejections under 35 U.S.C. § 103(a)

Applicant respectfully traverses the rejections of claims 1 and 4-15 as obvious over Löhn, Ng et al., West, Schmid, Rainey, Schindler, or Juodikis, taken alone or in combination, and, therefore, requests reconsideration and withdrawal of these rejections. In particular, each of claims 1 and 4-15 recites a control circuit for control of a media heating device of a dental handpiece that includes a heating current circuit in which there is arranged at least one hand-actuatable switch, which can be actuated by hand, for activating the heating device; and, at least one further, controllable switch element arranged in the heating current circuit, which switch element can be set in dependence upon an external control signal into a conducting condition or a non-conducting condition. None of the cited references discloses or suggests these limitations.

While Löhn, West, and Schmid each describes a dental spray handpiece configured to be manually activated, each of these references fails to disclose or suggest manual activation in combination with a "switch element [that] can be set in dependence upon an external

control signal into a conducting condition or a non-conducting condition,” as recited by claims 1 and 4-15. In fact, the Examiner admits that Lohn, West, and Schmid fail to describe all of the claim limitations. (June 6 Office action, p. 3, 2nd para.; and p. 3, 3rd para.). Accordingly, neither Lohn, West, nor Schmid, taken alone or in combination, renders any of claims 1 and 4-15 obvious therefrom.

Each of Ng et al, Rainey, Schindler, and Juodikis fails to provide the missing disclosure or suggestion of Lohn, West, and Schmid because none of these references discloses or suggests using an external signal to disable, i.e., to set from a conducting state to a non-conducting state, a controllable switch of a dental handpiece, as recited by claims 1 and 4-15. That is, when the switch is in the conducting state, it operates as normal to activate the heating device when depressed. When the switch is in the non-conducting state, it does not operate to activate the heating device when depressed. Further, neither Ng et al, Rainey, Schindler, nor Juodikis can properly be relied upon in an obviousness rejection because each of these references is nonanalogous art that solves a different problem than that faced by the inventor of the present application. The problems faced by the inventor of the present application are unique and, in particular, concern how to completely switch off the heating of a dental handpiece via an external control signal, so that even upon actuation of a manual switch of the dental handpiece, no heating or warming of the media occurs. (Specification, p. 3, ll. 11-18). Contrarily, each of the Ng et al., Lohn, Rainey, Schindler, and Juodikis references solves a different problem, one of operating a device from a remote control, than that solved by the inventor of the present application. Therefore, one of ordinary skill in the art at the time of applicant's invention would **not** have been motivated to modify the disclosure of Ng et al., Lohn, Rainey, Schindler, and Juodikis to arrive at the claimed subject matter.

For example, Ng. et al. does not describe using an external signal to disable a controllable switch. It instead describes a system that permits remote operation of the device. At the same time, it remains possible to control the device locally such as when the user returns home and switches the device off. The remote control of Ng does not disable the local control. In the instant invention, the external control signal disables the switch element in the heating current circuit and does not allow for remote control of the dental handpiece. Therefore, one of ordinary skill in the art at the time of applicant's invention would not be

motivated to combine the teachings of Löhn with Ng et al. because Ng et al. is nonanalogous art and teaches away from the claimed invention.

Similarly, none of Rainey (which describes remotely controlling a flushing system), Schindler (which describes a temperature control circuit for a point-of-use water heater), and Joudikis (which describes a temperature controller for use with an electrical heater for maintaining temperature at a selected set point), teach or suggest disabling a local control of a device via an external signal. Therefore, one of ordinary skill in the art at the time of applicant's invention would **not** be motivated to combine the teachings of Löhn with either Rainey, Schindler, or Joudikis because each of these references is nonanalogous art.

Claim Rejections under 35 U.S.C. § 102(b)

Applicant respectfully traverses the rejection of dependent claims 16 and 17 as anticipated by Rainey and, therefore, requests reconsideration and withdrawal of this rejection. Claim 16, as amended to include the limitation of claim 17, recites a dental spray handpiece that includes a heating device, which can be switched on and switched off via an external signal disabling operation of the switch, for heating a medium flowing therethrough. For example, the switch may be disable prohibiting operation of the heating device when the medium is intended for the purpose of at least one of cleaning and disinfecting the spray handpiece. Neither Rainey nor West disclose this limitation.

Rainey describes a fluid distribution system for remotely controlling a flushing system. Nowhere does Rainey teach or suggest using an external signal to disable the switch used to operate the heating device of a dental handpiece. As a result, Rainey cannot anticipate claim 16. Further, as discussed above, Rainey cannot properly be relied upon in an obviousness rejection because Rainey is nonanalogous art that is not reasonably pertinent to the problems faced by the inventor of the present application.

The examiner points to the end of column 6 as teaching this limitation. The applicant disagrees. The Applicant sees nothing in the description at the end of column 6 of Rainey, which describes a process for Pasteurizing a media retained in a media tank as teaching use of an external switch for disabling a switch that operates the heating device of a dental handpiece. Therefore, Rainey does not anticipate claim 16 or render it obvious.

Similarly, West does not teach this limitation. The examiner points to column 8, lines 37-39 as teaching a switch for controlling a heating device of a dental handpiece that may be disable by an external signal. The applicant disagrees. All West teaches at column 8, lines 37-39 is a switch to turn the entire apparatus on and off. It does not teach an external signal to disable the switch controlling the heating device where the dental handpiece is otherwise operable as normal and in particular is operable for cleaning. Therefore, West does not anticipate claim 16 or render it obvious.

In view of the above remarks, applicant believes the pending application is in condition for allowance. The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 13-2855, under Order No. 30815/27597. A duplicate copy of this paper is enclosed.

Dated: August 18, 2005

Respectfully submitted,

By Marla L. Hudson

Marla L. Hudson

Registration No.: 43,680

MARSHALL, GERSTEIN & BORUN LLP

233 S. Wacker Drive, Suite 6300

Sears Tower

Chicago, Illinois 60606-6357

(312) 474-6300

Attorney for Applicant

Similarly, West does not teach this limitation. The examiner points to column 8, lines 37-39 as teaching a switch for controlling a heating device of a dental handpiece that may be disable by an external signal. The applicant disagrees. All West teaches at column 8, lines 37-39 is a switch to turn the entire apparatus on and off. It does not teach an external signal to disable the switch controlling the heating device where the dental handpiece is otherwise operable as normal and in particular is operable for cleaning. Therefore, West does not anticipate claim 16 or render it obvious.

In view of the above remarks, applicant believes the pending application is in condition for allowance. The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 13-2855, under Order No. 30815/27597. A duplicate copy of this paper is enclosed.

Dated: August 18, 2005

Respectfully submitted,

By Marla L. Hudson

Marla L. Hudson

Registration No.: 43,680

MARSHALL, GERSTEIN & BORUN LLP

233 S. Wacker Drive, Suite 6300

Sears Tower

Chicago, Illinois 60606-6357

(312) 474-6300

Attorney for Applicant

DUPLICATE